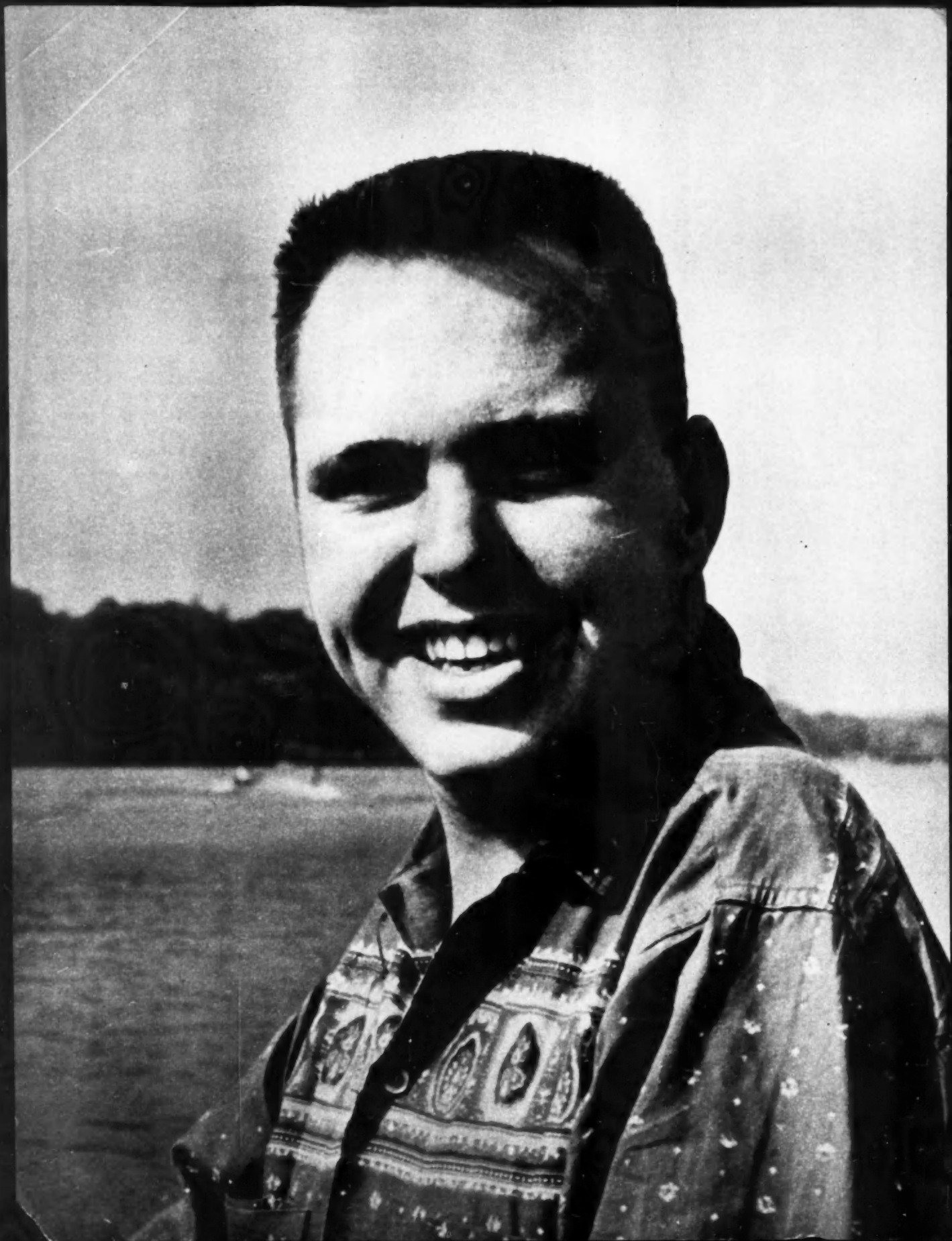
American Youth

SEPTEMBER • OCTOBER 1961

A high school student explores a college

see story inside



YOUNG AMERICAN OF THE MONTH

What once was only a matter of opinion has become a matter of record; Leonard Nelson Smith is a hero. He is a winner of the Carnegie Medal, which has been a yardstick for heroism since 1904. Leonard, who is 18, is not the first teen-ager to be awarded the Carnegie Medal, but his feat is a good example of the deeds that win medals from the Carnegie Fund.

Leonard was awarded a bronze Carnegie Medal for rescuing William K. O'Reilly, 18, while the two boys were swimming in Saratoga Lake near their home town of Saratoga Springs, New York. William became tired and called for help while 1,300 feet from shore. Leonard, who was about 200 feet away, swam to the struggling boy. He had to break William's panic-stricken grip several times and fight to keep afloat, but finally managed to tow him to safety.

What lifts Leonard's feat from the ordinary is that he has only about 40 per cent normal use of the muscles in his arms and legs. Nevertheless, he is a capable swimmer who is interested in skin-diving (he doesn't own his own diving rig because he's saving his money for college). His college fund is kept growing by his job as a newspaper salesman – and will be boosted along by a $500 grant accompanying his medal.

Such grants frequently accompany Carnegie Medals; more than $7,800,000 have been awarded by the Carnegie Hero Fund Commission. The grants are made for educational expenses, monthly allowances, or other worthy purposes, as the commission deems advisable. The grants are an important part of the Carnegie awards; indeed, Andrew Carnegie's primary purpose in establishing the fund was to provide financial assistance to people disabled in heroic efforts to save human life, or to help the dependents of those who lost their lives in heroic efforts. Carnegie awards go only to those who risk their lives to an extraordinary degree in attempting to rescue someone else. In short, to people like Leonard Smith.

American Youth

VOL. 2, NO. 5 SEPTEMBER-OCTOBER 1961

WHEN PAUL SNIBBE, who is now a senior at New York City's Music and Art High School, made an exploratory visit to the University of Pennsylvania in Philadelphia last spring, AMERICAN YOUTH photographer Cal Bernstein went along to record Paul's experiences for the story on pages 10 through 13 of this issue. The picture on our cover shows Paul and his campus guide, Penn student Bill Hoff, in front of the university library.

PHOTOGRAPHIC CREDITS

2, Werner Wolff — Black Star. 4-5, Jack Stager — Globe. 6, Engineering Photographic Department, General Motors Proving Ground. 8-9, Gene Daniels—Black Star. 10-12-13, Cal Bernstein. 14-15, Bob Berger. 16-17-18, John Rees—Black Star. 20, General Motors Photographic. 21, Joe Clark *(left)*; General Motors Photographic *(right)*.

GENERAL MOTORS sends AMERICAN YOUTH to newly licensed young drivers every other month

American Youth is published by Ceco Publishing Company, Dept. AY, 3-135 General Motors Building, Detroit 2, Michigan. John H. Warner, editor; Frank R. Kepler, associate editor; Herman Duerr, art director; Helen Simkins, William J. Morey, John Tuba, Alexander Suczek, Ernest E. Hickman, editorial assistants; John Reed, business manager.

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High School With A Salt-Water Campus

A moored ship makes a sensible high school annex in the busy port city of New York. What better place is there to train merchant seamen?

Salt-water corrosion demands constant chipping and painting. Brown *students master this chore, even high in the rigging.*

Instructor M. Bishansky (at left, below) explains sextant operation during a class in basic navigation.

THE S. S. JOHN W. BROWN looks like any other seagoing Liberty ship moored in New York's East River. It doesn't act like any other, however, for, while it stays trim and freshly painted, steam up and ready to sail—and even occasionally weighs anchor – it never puts to sea. It remains permanently moored at pier 73, where it serves as an annex to the Metropolitan Vocational High School.

Metropolitan offers the only public high school training program for seamen in the U.S., thanks to this unique East River annex. Aboard it, some 450 students each year receive instruction in either the maritime deck course, maritime steward course, or marine and power engineering course. These are complemented by related academic studies at Metropolitan's main building on shore.

In addition to courses in his specialty, each student is required to take exploratory courses in the two other specialties. Then, when he graduates, he receives papers qualifying him as an ordinary merchant seaman, messman, and wiper. With three years' sea experience, he can take the Coast Guard exam to qualify for a rating as an able-bodied merchant seaman.

Instruction aboard ship runs the gamut from semaphore signaling on the bridge to baking in the galley. Deck training gives practical experience in handling and maintaining a ship—including the unending job of painting and chipping. The steward's course concentrates on shipboard "housekeeping"—care of quarters and meals. The marine and power engineering specialty is devoted to mastery of the ship's boilers, engines, generators, and other machinery.

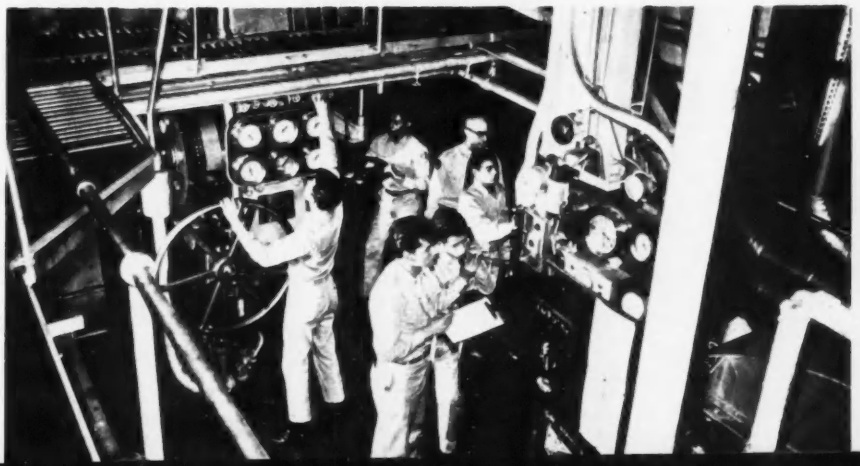
Instruction takes place under actual "seagoing" conditions. The *Brown* is a working ship; under the terms of her $1-a-year lease from the U.S. Maritime Administration, she must be kept trim and ready to sail on 24-hour notice. The *Brown* wouldn't need that much time. Replacing six bolts in the propeller shaft would return her to seagoing status. Her main engine is operated frequently and is well maintained; she pumps her own water, manufactures her own electricity, cooks her own food, heats her own cabins, and is every inch a "live" ship.

While a training cruise would be of great educational value, the *Brown* probably will never make one. She is, after all, a school. And schools just don't go voyaging on the high seas, but stay at home and close at three p.m.

Some 20 to 25 per cent of *Brown* graduates go on to college or maritime academy. Many have distinguished themselves in the Navy and Coast Guard as well as in the merchant marine service. Those who enlist adjust quickly to armed forces' requirements and advance to petty officer rank in much less than the usual time; many have become commissioned officers. Other *Brown* graduates have become masters or chief engineers in the merchant service.

All Brown *graduates know how to handle a lifeboat under oars or sail; they learn by actual practice in the East River.*

Power engineering students operate and maintain the ship's generators and machinery; they frequently run the main engines to keep the ship ready for sea on 24-hour notice.



In galley, students learn to prepare food for ship's passenger menus.

G. F. Brigham

WATCH OUT! YOU MAY BE GOING

by GEORGE F. BRIGHAM, Test Supervisor, Engineering Test Department, General Motors Proving Ground

SOME YEARS AGO, "a mile a minute" was an impressive speed. Today, it tends to seem pretty poky, what with experimental aircraft exceeding 3,000 miles an hour and jet airliners crossing the country from coast to coast in about five hours — not to mention the phenomenal speed of missiles and satellites.

In this fast-paced environment, some drivers are inclined to think of 70 miles an hour as a "moderate" cruising speed on a highway, and 40 miles an hour as barely above a horse-and-buggy pace in town. The illusion is enhanced by the smooth performance of modern cars on modern highways.

DRIVING CONDITIONS GOVERN SPEED

Speed is relative. "Fast" or "slow" cannot be defined simply in terms of miles per hour. The key factors are the possibility of trouble and the time and space available for avoiding it.

After all, sometimes you can even *walk* too fast for safety, as in a dark room or on an icy sidewalk. You can easily drive a car at speeds so excessive for conditions that, in comparison, an X-15 pilot would consider his speed trials as tame as a merry-go-round. In fact, one such test pilot recently remarked that he felt much safer in the air than on the road. He isn't the first expert to make such an observation.

To develop into a really good driver, start out with a healthy respect for the power at your command. Don't let ignorance or vanity foster the notion that you can easily handle any situation on any highway at any speed — that for you there's no such thing as "too fast for conditions."

Unfortunately, many drivers learn the truth about speed hazards only through a tragic accident or a harrowing near-miss. Experience is a good teacher, but the tuition is sometimes too high. With the facts to help you develop a sound attitude so readily available, there is no point in resorting to costly trial-and-error.

A good beginning is to translate highway speed into terms that are more meaningful, from the standpoint of skillful driving, than the familiar "miles per hour." This is fine for posting speed limits or planning a trip schedule, but it's not pertinent enough in terms of split-second developments in traffic. Start thinking of speed in *feet per second*, and the critical importance of observing safe limits will quickly come into clearer focus.

Thus, 60 miles per hour begins to look a lot faster when we translate it into 88 feet per second — or about five car lengths. At this speed, you move about 350 feet — almost a city block — with every normal breath. In the time it takes to read this sentence, you would travel about 250 feet, or 15 car lengths. Look away for just two seconds to admire the scenery, talk to your passengers, or adjust the radio: you've traveled 175 feet — more than half the length of a football field.

AND LOOK AT THESE FIGURES!

At 60 miles an hour on a typical residential street, you are passing a house (and maybe a small child playing near the road) about every second. Along a street lined with parked cars, you pass one car every quarter of a second — as quick as a wink, and a lot quicker than you can change direction or speed.

At a mile a minute, a typical reaction time of three-

quarters of a second means that in an emergency you will travel 66 feet before you apply your brakes – plus about 200 feet to come to a stop on a good, dry pavement with good brakes. This means that you are bound to strike anything in your path within about 16 car lengths if you are unable to turn safely out of the way. Of course, these distances increase tremendously on a wet or icy pavement.

When you swing out to pass on a two-lane road at 60 miles an hour, you and an oncoming driver going at the same speed are closing the gap at the rate of 176 feet every second. Starting a quarter-mile apart, you will meet in just 7½ seconds.

Or put yourself at a mile-a-minute pace on an unlighted road on a pitch-black night. If the visibility range of your headlights is 200 feet, you are just over two seconds away from any hidden hazard – too close to stop in time!

A pedestrian crossing your lane up ahead will take about two seconds to clear your path at a normal walk. At 60 miles an hour, you will travel 10 car lengths in that time – 20 times as fast!

ANOTHER WAY TO LOOK AT SPEED

Another enlightening and sobering way to look at speed is in terms of impact forces in a collision. As you may recall from a physics or driver-education course, the energy of a moving object increases as the square of the speed. That is, when you double your speed from, say, 30 to 60 miles an hour, the kinetic energy is quadrupled. Go on up to 90 miles an hour and it is increased ninefold.

To stop your car, this energy must be dissipated in some way. That's why braking distances increase so sharply with higher speed. It's also why destructive forces build up so rapidly with greater speed of impact in an accident.

Even at 20 or 30 miles an hour, a collision with a virtually immovable object, such as a large tree or a bridge abutment, can do an awesome amount of damage. As speed increases, impacts soon enter the category that crash injury researchers call "non-survivable."

A fixed-object collision at high speed is comparable to plunging from the top of a tall building in a car.

CAR MAY STOP, BUT YOU KEEP MOVING

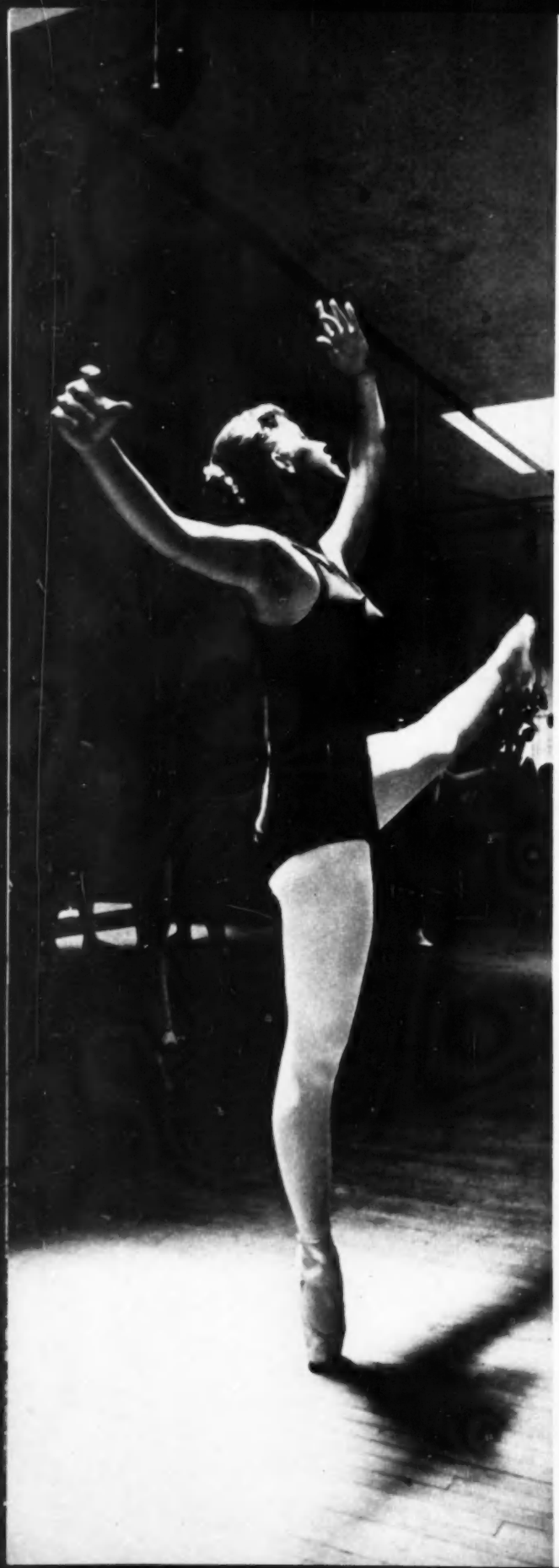
You've probably had the unpleasant experience of being thrown forward abruptly by sudden sharp braking. Multiply this several-fold and you'll have a rough idea of what would happen to you in a car that stopped from 60 miles an hour in just two feet. The point is that when the car stops, you are still moving inside it at almost 60 miles an hour. There's no bracing yourself with your arms or legs against this force. You hurtle forward and hit hard. Have you ever walked smack into a wall or tree in the dark? Imagine doing it at about 20 times as fast!

These comments on speed are not intended to scare you into trading your car for a burro. There's nothing inherently wrong with moving fast. Increasing speed – with safety – has been a major measure of progress throughout the history of transportation.

It would be foolish to deny ourselves the benefits of this progress through a morbid fear of fast travel. But it's far more foolish to misuse the speed at our command in an automobile by driving too fast for conditions.

Good drivers go to neither extreme. With a sound, well-informed attitude on speed and the ability to handle a car well, they consistently demonstrate that travel by car can be a wonderful combination of mobility, convenience, economy, safety, and pleasure.

FASTER THAN YOU THINK!!!!!!!



19-year-old Diane Gibson is a

Teen On Her Toes

AT THE AGE OF 19, Diane Gibson, of Los Angeles, is a seasoned professional ballet dancer who has danced across the U.S. and halfway around the world.

To dance in faraway places has been Diane's desire since she was a little girl in dancing school. Less than two years after her high school graduation, she had realized her ambition by performing in major cities in the Soviet Union, Poland, Germany, Cuba, Mexico, and Canada.

While touring Russia with Alicia Alonso's Ballet Company a year ago, Diane performed in Kiev, Leningrad, Moscow, and Riga, in Warsaw, Dresden, and East Berlin, and in Latvia.

In Russia, she found the theaters magnificent, the people friendly, and the Russian performances of opera and ballet superb. Otherwise, she found the Communist countries dreary and cold, and the differences between East and West Berlin were just as glaring as reports by other people have indicated.

Of course, Diane didn't gain professional status overnight. It took years of hard work, self-discipline, sacrifice, dedication – and talent – for her to become a teen-age star in a troupe of world-famous performers.

She first studied ballet under a scholarship at the Atlanta (Georgia) School of Ballet. Then she studied at the Elizabeth James School in Dallas, Texas, where the famous Alexandra Danilova taught a few months each year. In Los Angeles, she studied with Maria Bekefi and Carmelita Marracci and at the American School of Dance and the Panaieff Ballet Center.

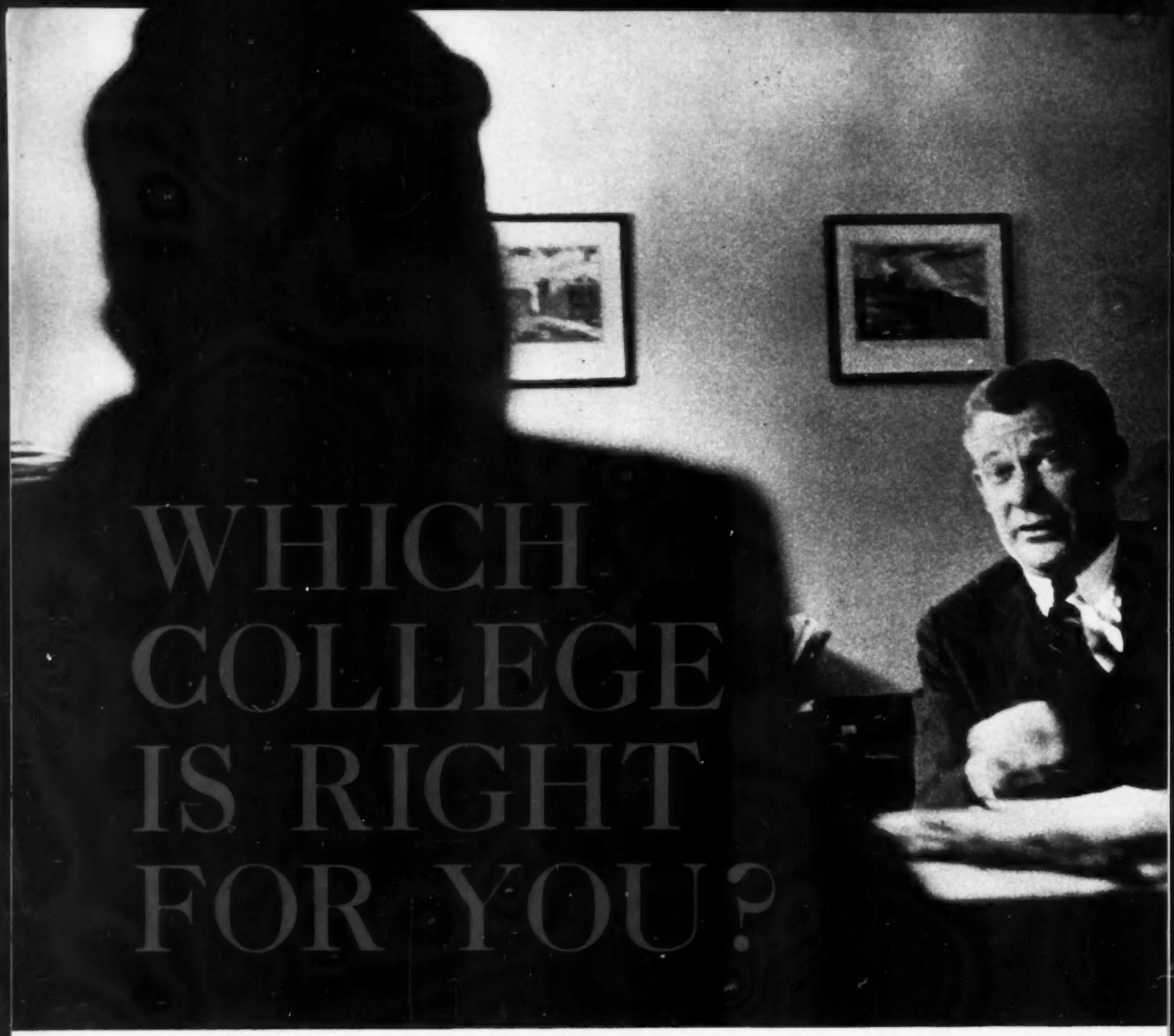
Her first professional appearance was in the corps de ballet of the ballet *Giselle*, starring Alicia Alonso and Igor Youskevitach. Then, after three appearances with the Panaieff Ballet Company, Diane became a soloist in Michel Panaieff's Los Angeles City Ballet. She also appeared in Alicia Alonso's production of *Coppelia*.

Between engagements, Diane continues ballet classes in Los Angeles. She plans to study in New York this fall.

Diane makes ballet look easy as she practices at the Panaieff Ballet Center prior to one of her professional appearances. At this time she was in her senior year in high school.

Displaying poise and dramatic skill, Diane dances a starring role with her instructor. She began studying ballet when she was nine years old.

A ballet dancer takes a very personal interest in her dancing shoes, which must be kept in good repair. Diane, relaxing at home, uses needle and thread to mend one of her well-worn dancing slippers.



WHICH COLLEGE IS RIGHT FOR YOU?

This is the third in a series of six articles about planning for college that will appear in AMERICAN YOUTH. The subjects of the articles are: 1. Whether to go to college. 2. The high school program with college as its goal. 3. How to choose a college. 4. How to get into college. 5. Financing a college education. 6. How to get along at college.

WHEN THE TIME COMES for you to select your college, you may be bewildered by the wide range of choices – there are 2,266 institutions of higher learning in the U.S. Don't panic. As you look over the field, you will find that your own needs – your career plans, the field of study you want, your finances, for example – will quickly limit the possible choices.

The first thing you should do is take a look at one of the college directories that are mentioned at the end of this article. These books list all the colleges and universities in the country and indicate special courses, academic standards, and costs at each one. You will be able to spot the colleges that seem to suit your needs.

There are, of course, many factors that will affect your final choice. To help you weigh these factors and choose wisely, AMERICAN YOUTH asked the advice of Dr. Clarence E. Lovejoy, educational consultant, who has been described as "America's foremost authority on colleges." He is the author of five books and college guides that are accepted as standard references. Through his consulting office in New York City, he has placed thousands of high school graduates in colleges and universities. Here are Doctor Lovejoy's answers to questions that high school students ask about choosing a college.

● *When should I start looking around for the right college?* By the 10th grade – even the ninth, if you have definite career plans by then. Don't wait until your senior year in high school, or it may be too late.

● *If I haven't decided on a specific career, how can I choose the best college?* There is no "best" college, although some may be better than others for your particular needs. The attitude you have toward education and the intensity of your intellectual curiosity are more important considerations than the specific choice of a college for your general education.

● *In other words, all colleges are the same?* Absolutely not. No two are alike. But choosing a college is like picking out a girl- or boy-friend – what appeals to one person may not appeal to another, although that doesn't necessarily make one better than another. There are enormous differences in faculties, physical facilities, and the kind of courses offered. The only rule I will offer is that if you plan to take graduate work in law, dentistry, medicine, or engineering, you must attend one of the 1,058 accredited, degree-granting, four-year colleges. Whichever one you choose may not make a big difference – and let's face it, the selection may be up to the college, rather than you. All other things being equal, you can do your best work where you are happiest.

● *Does it matter whether I go to a big-name college or a small, no-name college?* Size is not important. Theoretically, small schools are more intimate for students and faculty, while big universities have better-equipped labs and research facilities. In practice, there are too many exceptions for this to be a rule. You can go to a college where there are more than 20,000 students and never see more than a few at a time. As for faculty qualifications in a small school, most professors there could probably qualify for a big campus if they wanted to.

● *Is a vocational college better than a liberal arts college?* There's no longer much difference between these two types of institutions. Today you can major in any field, from accounting to zoology, in a liberal arts college. Conversely, vocational colleges offer music, art, and literature.

● *What about co-education?* A recent poll indicated that 92 per cent of all college students prefer co-educational institutions. The trend is definitely in that direction.

● *Should I stay near home or go out of town?* I'm an advocate of the one-world concept applied to college life. Expense is a big factor here, but I'm in favor of all easterners going to school in the West, and sons and daughters of midwesterners spending four years in the East.

● *How much should my friends' opinions influence my choice?* The college your friend chooses may be perfect for him and absolutely wrong for you. Make up your own mind. After all, you're investing four irreplaceable years and $7,000 to $10,000. It's your life, not your friend's.

● *Do my parents know best when it comes to choosing a college?* They should be involved in the decision. You will probably find that their mature judgment and business experience will bring up factors you hadn't thought about. Your parents should be reminded, however, that the college scene may have changed since they were in school. Discuss the matter with them and agree on a solution.

● *To what extent can my school guidance counselor help?* If you have a counselor, ask his opinion. However, most counselors are overburdened with work and it is difficult for them to give individual attention to your problem. The best person to rely on for college research is yourself, in the school or public library, or at home with a stack of college guides and bulletins.

● *After I've made a preliminary selection of colleges, how many should I write to?* At least 20 to 25. (See sample letter at the end of this article.)

● *How many should I apply to?* About six. Be sure to apply by October 1st when you're in the 12th grade.

● *Is it a lost cause if I get rejected by all six?* Not at all. Much depends upon how judiciously you have made your selections. Included in your list should be a few lesser-known colleges where demand for enrollment is not overwhelming. A typical college receives seven applications for every acceptance, but this ratio varies from two to one to 20 to one. Don't be discouraged if you're rejected the first time around; keep sending away for more applications.

● *How can I tell which colleges are under-enrolled?* By keeping up with magazine articles and books (see reference list), by talking with your guidance counselor and your church leader. For more information, write to a professional service, such as the Association of College Admission Counselors (College Admissions Center, 1611 Chicago Avenue, Evanston, Illinois), or to the College Admissions Assistance Center (535 East 80th Street, New York, New York), or to me (Dr. C. E. Lovejoy, Educational Consultant, 1475 Broadway, New York 36, New York).

● *If I'm accepted by more than one college, how can I choose the one that suits me best?* First of all, count your blessings. If the choice is between two or more institutions that are equal academically, then the choice is a matter of personal preference. Just remember that you're not enrolling in a country club, although there are considerations outside the classroom that may affect your decision. For example, you may prefer a college that has R.O.T.C. or intercollegiate sports (some have neither). Climate may be a factor, or the size of the college town, or outside job opportunities. You may like to ski or swim 12 months a year. You may find better living accommodations in one, or a special fraternity or sorority in another. You may prefer to be closer to or farther from home, or perhaps you'd rather be in California, or New Hampshire, or Alaska. These intangibles should be considered after you've established the institution's academic standing.

● *Is there any way to pre-test or compare colleges first-hand before actually committing myself to enrollment?* The best way to get a real feeling for an institution is to visit it in person. You can read college bulletins from cover to cover, but there's no substitute for a walk around the campus and informal talks with students.

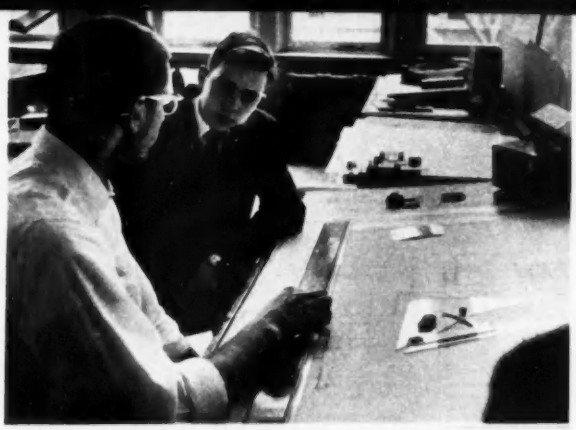
★ ★ ★

Recently, Paul Snibbe, 16, of New York City, accompanied by an AMERICAN YOUTH representative, made a visit of this kind to one of the colleges he would like to attend. First, Paul talked to the dean of admissions (pictured opposite). His other experiences are described on the following pages.

(Continued)

In library, Paul found an impressively large selection of reference material in stacks open to students. He was even more impressed with the number of students he saw at work.

At lunch, Paul joined students in the commons. They talked about dating, dancing, and fraternities, and answered his questions about how much studying is required.



Paul talked with a graduate student in architecture about Penn's architecture school (which Paul hopes to enter).

VISITING A COLLEGE

Last spring, Paul Snibbe of New York City decided to make an exploratory visit to the University of Pennsylvania. A few weeks in advance, he wrote to the dean of admissions, asking for an appointment on a school day, so that he could see the campus in action. He explained that he was a junior at the Music and Art High School in New York and was interested in seeking admission to the university. Within a few days, he received a copy of the college catalog, a bulletin on admissions, and a letter granting him an interview. Paul read everything carefully, so that he would not waste his interview by asking questions that were answered in the printed material. The interview was Paul's first encounter with a university official, and he was surprised at how relaxed and welcome the dean made him feel. Paul was not the only one to ask questions, however. The dean also interviewed Paul, and filed a report on him that will be referred to when he applies for admission. The report, and the initiative that Paul showed in making the visit, will probably improve his chances of admission. On the campus tour Paul was guided by upperclassman Bill Hoff, past president of an honor society that conducts tours for visiting high school students. Together, Bill and Paul (in picture at right) explored the campus and talked with many students. You, too, can make a tour like this at almost any college in the country.

By special permission, Paul spent a night in the freshman dorm —a privilege not encouraged, but often granted if requested. He learned that there is no curfew; students impose their own.

REFERENCE LIST

Lovejoy's College Guide, C. E. Lovejoy; Simon & Schuster, Inc., 630 Fifth Avenue, New York 20, New York ($1.95).

Fine's American College Counselor and Guide, Benjamin Fine; Prentice Hall, Inc., Englewood Cliffs, New Jersey (paper-bound, $2.50; cloth-bound, $4.95).

New American Guide to Colleges, Gene R. Hawes; A Signet Key Book, The New American Library, 501 Madison Avenue, New York 22, New York (75¢).

The College Handbook (description of 250 member colleges of the College Board, including requirements for admission, programs, expenses, financial aid, and addresses), College Entrance Examination Board, Educational Testing Service, Box 592, Princeton, New Jersey, or Box 27896, Los Angeles 27, California ($2.00).

Barron's Guide to the Two-Year Colleges, Seymour Eskow; Barron's Educational Series, Inc., 343 Great Neck Road, Great Neck, New York ($2.98).

Directory of Small Colleges, Council for the Advancement of Small Colleges, 1818 R Street, N.W., Washington 9, D.C. (50¢).

The Small College Meets the Challenge (describes how 66 small colleges in 31 states have expanded their programs and the space they have for additional students), Alfred T. Hill; Council for the Advancement of Small Colleges, 1818 R Street, N.W., Washington 9, D.C. ($4.95, or $2.95 to counselors).

How to Visit Colleges, American Personnel and Guidance Association, 1605 New Hampshire Avenue, N.W., Washington 9, D.C. (pamphlet, 50¢).

★ ★ ★

When you consider a college, you will want to write for its catalog and application forms. Here is a sample letter you can use:

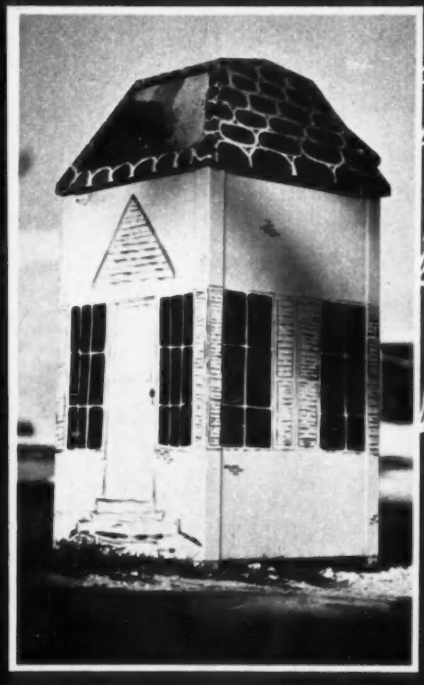
Director of Admissions
Name of College
City, State

Dear Sir:

I am a student at the ..... School and expect to graduate in ..... I am interested in your college and would appreciate receiving a bulletin of information and the necessary forms for filing an application for admission. I am considering ..... as my major field of study. Thank you.

Very truly yours,
Your Signature

PUSH
THOR RUBBISH HERE
U of M



flashy trash cans

They help to keep the campus of University of Miami clean

Anti-litterbug forces at Florida's University of Miami have scored a triple victory. They obtained paint needed to cover the campus trash receptacles, provided art students with numerous four-sided "canvases" (at no charge), and made the campus trash cans spectacularly noticeable. Result: A more trash-can-conscious student body—and a much cleaner campus—turned art gallery.

Ronnie Berger,

Professional Farmer

Like other members of Future Farmers of America, he considers farming a vocation, not a circumstance

Ronnie was chapter president and also was a Star Farmer of his chapter.

RONALD BERGER, 18, has experienced almost every phase of farming as his father's only "hand" on the family's farm at Salem, Ohio. And Ronnie knows an important but little-recognized fact of life: Mastering farming, like mastering any other craft or profession, demands ability, talent, study, and practice. Merely growing up on a farm makes a boy a farmer as much as giving him a brush makes him a painter.

Ronnie knows this because he is an expert farmer himself – and he became one through study and hard work. In his freshman year at high school he invested in a single brood sow. During that year and the next three, he multiplied his investment. By graduation time he still owned a brood sow – plus four high-quality cows and a brand-new automobile.

Now in partnership with his father, he looks forward to a profitable career in agriculture. Together, Ronnie and his dad are farming 150 acres, growing feed and fodder for a herd of 30 dairy cows, plus a sow or two and a score of feeder pigs being fattened for market. Ultimately, Ronnie's dad will retire, and management of the entire farm will become Ronnie's responsibility.

Ronnie is preparing for that day by a unique educational combination – vocational agriculture and the Future Farmers of America. He studied vocational agriculture as a student at United High School in Hanoverton, Ohio. This qualified him for membership in the FFA, a national organization of vocational agriculture students.

An FFA member learns to be both a good farmer and a leading citizen. In the vocational agriculture classroom the student learns the techniques and theories of farming; in FFA activities he learns how to get things done by working with others. Ronnie's FFA chapter, for instance, managed to obtain 150 acres of land on which members could conduct experimental and supervised farm programs. The advantages of such cooperative efforts are emphasized in FFA activities.

(Continued)

Raising corn was an FFA project. Ronnie produced 110 bushels from each acre, better than his father's crop.

Each cow's milk output is carefully weighed and recorded, in a constant check of herd efficiency.

Farm chores, like bringing in the cows, are never done, but this is the life Ronnie Berger likes best.

Some FFA activities, however, are aimed directly at getting members to do better vocational agriculture work. A new member of the FFA is a "Green Hand"; he advances upward through degrees based largely on achievement in farming. He is given the incentive to work harder by the FFA Foundation, basically a fund-raising organization, which offers awards in such areas as soil and water management, farm mechanics, livestock farming, farm safety, and similar farm activities. Throughout all FFA activity, the vocational agriculture student learns how to take part in meetings, how to speak in public, how to work with others in a group.

More than 7,000 Future Farmers meet each October in Kansas City, Missouri, at the FFA national convention. There, the winners of eight FFA Foundation National Awards are announced, and a Star Farmer of the Year is identified. The Star Farmer nomination includes a college scholarship from the FFA Foundation; four regional Star Farmers also receive awards.

The national convention also elects a board of student officers. These students, like state and local officers, govern the FFA organization. Final authority at all levels is vested in an adult board or adviser, but the adults' action usually represents the boys' recommendations. All the adult leaders are also officials in the federal-aided vocational agriculture program.

Vocational education in agriculture includes classroom instruction in agriculture and farm mechanics for farm boys (no girls) age 14 or more who will go to work on a farm after graduation. Teachers in the program work throughout the year, visiting their students' farms frequently during the summer growing season.

A student in a vocational agriculture class learns both the techniques and theories of agricultural production. He looks into marketing and other phases of farm business management. He studies soil and water conservation, farm electrification, and other phases of agriculture. Since today's farm is highly mechanized, he must be part engineer; students familiarize themselves with the selection, care, maintenance, and operation of modern farm machinery. And since a farmer is part carpenter, part mason, and part rigger, the student learns how to construct and maintain farm fences, buildings, and other structures.

In addition to this classroom work, each student is required to work on supervised farming projects. These are aimed at increasing the student's practical knowledge and (since the projects must be profitable) increasing his investment in farming. The goal of the program is not just to train a capable farmer, but to give him a good start in setting up business for himself. During high school, each student is encouraged to expand his farming program so that by the time he finishes school he has built an investment in farming large enough to permit him to farm on a full-time basis, or to permit him to enter into a sound partnership agreement with his parents.

He is also prepared to leave the farm, if he desires, to assume a role in the multi-billion-dollar farm-industry business – the business of providing implements, machinery, supplies, and raw materials for farmers, and getting farm products to the world's dinner tables. ■ END

PREVIEWS OF PROGRESS

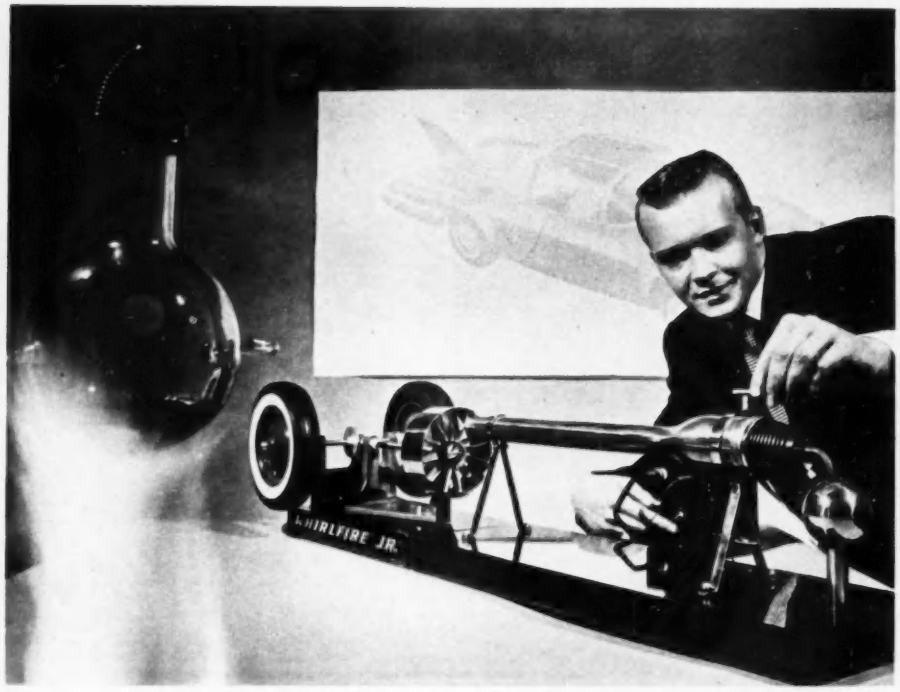
Road-show techniques are used to demonstrate research laboratory phenomena

THE MAINSTAYS of many successful stage shows – boy-gets-girl story line, lively music, pretty chorus girls – are missing from one of the nation's most popular road shows. The show, called *Previews of Progress*, is a 45-minute program created by General Motors for the purpose of inspiring capable students to pursue careers in science and engineering. *Previews* points out the unlimited opportunities available in these fields by illustrating in a highly entertaining manner what science has done, is doing, and may do in the future for ever-better living.

(Continued)

PREVIEWS OF PROGRESS

(Continued)



Development of jet propulsion and gas turbines from the first jet engine invented by Hero more than 2,200 years ago (a model twirls over flame at left) to the power for cars of tomorrow is dramatically demonstrated in performances of General Motors' Previews of Progress *traveling shows.*

Previews has won wide acclaim by displaying some spectacular scientific phenomena that are normally seen only in the laboratory of a scientist. Narrator-demonstrators present the acts in an exciting, fresh, and spellbinding manner. For example, a pop bottle containing only a clear liquid and a catalyst suddenly erupts to form a synthetic-rubber snake that's several feet long and nearly a half-foot thick. The narrator then tells members of the audience that they are looking at "instant rubber." A few of the acts are ear-splitting; the demonstration of a gas turbine engine, for example, involves the use of a miniature jet engine that has the "voice" of a tugboat.

But *Previews* is no static display of chemistry or gadgets. Science is put through its paces by a capable narrator, who carefully introduces each sequence and prepares the audience for what it is about to witness, sometimes by creating considerable suspense. Before the rubber snake pops from the bottle, for instance, the narrator identifies the chemicals in the bottle, explains how they boil at room temperature, adds a catalyst, then shakes the bottle. As he does so, he comments jokingly: "We have performed this act dozens of times with no accidents—so far" or "I notice that there are four exits in this auditorium. If anything should go wrong, please file out the doors on this side. I want the two other exits left open for me to use."

A *Previews* narrator uses the flair of a showman when he translates science into comprehensible fact. When he announces that he is going to rearrange molecules to form

A stubborn suitcase reacts by jerking and twisting when forced to change direction. This is part of an exhibition of gyroscopic action.

The Sunmobile, a car that runs on electricity created when light strikes the sun batteries on its hood, is typical of Previews of Progress *effects. Laboratory wonders now, many of these developments will become commonplace and familiar in the future.*

polyurethane, the audience accepts the fact with little enthusiasm. But when he whips up a foam plastic "cake" on the stage, to demonstrate molecular action, then catches an egg in the cake, the spectators are quick to show appreciation. (The foam plastic is used for crash pads in automobiles and aircraft.) Another typical trick of the narrator is to ask a student to carry a suitcase (in which a gyroscope has been secreted) across the stage. When the suitcase appears to "resist" all changes of direction on the part of the carrier, the narrator is then able to explain the principle of gyroscopic action to the mystified audience. Similar demonstrations are presented to illustrate and explain the operation of a Sunmobile, a microwave, a ground effect vehicle (a wheelless vehicle that rides on a cushion of air), fuel cells, a solar generator, and jet propulsion.

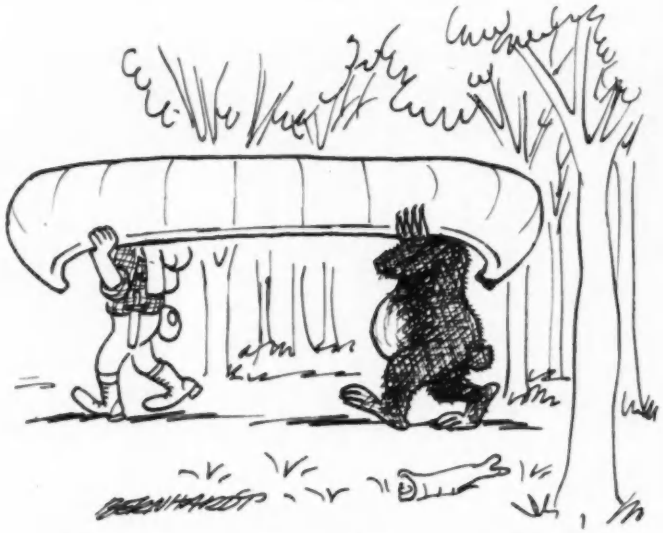
Efforts are continually directed toward keeping the *Previews* shows in step with technical advances. Currently, work is being done to develop a demonstration based on the "exploding wire phenomenon," in which a wire smaller than a hair is caused to explode by the sudden application of electrical energy. In the demonstration, the application of peak-current causes a loud explosion, a bright flash of light, and the generation of force sufficient to lift a paper missile several feet. Other areas of research being explored for possible demonstrations include electronic heating and cooling devices and a microwave sequence that would show the use of a satellite serving as a relay (much in the manner of Echo I) for worldwide communications.

Previews of Progress was first presented 25 years ago at Ann Arbor, Michigan. Since that time, more than 22 million people have seen the show, and another million and a half will see it this year.

Although the show is intended basically as a high school assembly program, it has been staged under strange circumstances, in the tradition of show business. It has been presented on the platform of a stake truck in rural areas, on the roof of a luxury hotel, in a boxing ring, on the Boardwalk at Atlantic City, and on the deck of an aircraft carrier. Audiences have ranged from groups of 100 to 6,000.

Currently, seven two-man teams are touring the nation with *Previews of Progress* units. Each team carries more than 1,000 pounds of equipment in a station wagon; it takes a team about an hour to set up a stage for a performance.

Previews of Progress borrows heavily from the philosophy of the late Charles F. Kettering, who was director of the General Motors Research Laboratories and a plain-spoken advocate of scientific research. "Boss" Kettering was convinced that we had barely scratched the surface in our search for scientific knowledge. He once said, "We should all be interested in the future; that's where we are going to spend the rest of our lives." *Previews of Progress* hints at what the future may be like—if there are enough science-minded men and women to lead the way. ■ **END**



"WHAT WAS ALL THAT COMMOTION BACK THERE, HERB?"

"DO YOU MIND IF I KEEP THE DOOR OPEN? I'M ALSO SITTING FOR MRS. GROSBY ACROSS THE STREET."

"LINDA! IT'S HERE!"

YOUNG AMERICA HAS ITS SAY

QUESTION FOR SEPTEMBER:

At 18, are teen-agers sufficiently mature to warrant reducing the national minimum voting age to 18?

Sirs:

It is only right to let 18-to-20-year-olds vote. If they are mature enough to be taxed, then it would be taxation without representation to deny them voting privileges. Shouldn't they be allowed to have some say as to where their money goes? If they are mature enough to be drafted, to fight, and possibly to die for their country, isn't it only right to allow them to choose their leaders? If 18-to-20-year-olds have to help support and defend our country, they should have some say in it.

SAM SCHILLER, 16
Cass Technical High School
Detroit, Michigan

Sirs:

I don't think that the voting age limit should be lowered. Until the age of 18, most young people live in their parents' homes. They have little opportunity to form their own opinions and are much influenced by their parents. By the time they are 21, they have associated with people outside their homes enough to make up their own minds. Furthermore, I can see no relationship between physical ability to serve in the armed forces and mental stability and maturity to choose our leaders.

SHARON LARSON, 17
Victor High School
Victor, Montana

Sirs:

Some teen-agers of today are much more mature than others. However, in my opinion, the *average* teen-ager now is far better informed than ever before, and his ideas are correspondingly more mature. Therefore, I *do* believe that the average 18-year-old is sufficiently mature to take part in the American privilege and responsibility – voting.

BRIAN ALM, 17
Kewanee High School
Kewanee, Illinois

Sirs:

I believe that our 18-year-old citizens are sufficiently mature, and deserve the right to vote. Having had 12 years of extensive education, the 18-year-olds are more mature now than they were when the present minimum voting age was established. Today, a great number of 18-year-olds have jobs and pay income tax and are subject to the draft; thus, they are fully earning the voting privilege. Their voting represents their thinking on current issues in which they are interested and often better informed than they are at a later age.

PHYLLIS HIGGINS, 17
Valley High School
Albuquerque, New Mexico

Sirs:

In my opinion, the voting age should either stay the same, or be raised to 25—but by no means be lowered. Many teen-agers figure that if they are old enough at 18 to be drafted to defend their country, they should have a say in our democratic country. This is not logical, because many people of the U.S. – adults and teen-agers – are not even well informed on the matter or the candidates who are running for important offices.

JIM ARDIA, 17
Lake George Central School
Lake George, New York

Sirs:

Yes, I believe that we teen-agers are mature enough to vote at the age of 18. We are vitally interested in and concerned with our government. In the last presidential election we had no vote—but we are the ones who must make our start in life under this administration. We will be affected more than any other single group by its laws and policies, yet we could not express our choices. In my opinion, at 18 we are more politically conscious than many American voters.

JEAN LEWELLEN, 17
Enid High School
Enid, Oklahoma

Sirs:

Such a question is really undebatable. Science states that the average human being only approaches maturity at age 21, and is only really mature around age 40. How can we, then, even presume to ask for the lowering of the voting age to the comparatively infantile age of 18, when, according to science, most 21-year-olds aren't mature enough? These are critical times for America, and the more important decisions, such as electing government officials, should rest with the adult, not the teen-ager.

BOB GYEMANT, 17
John Marshall High School
Los Angeles, California

Sirs:

The vote, like a stick of dynamite, demands wise and cautious handling. Unfortunately, at 18 the majority are not mature enough or willing enough to study all issues and all candidates from all sides. Eighteen is still an age of emotional snap decisions – decisions based mainly on personality and good looks, not on issues or ability. Of course, some adults vote unintelligently; but I, for one, do not want my future – America's future – jeopardized by youthful voters who substitute exuberance for reason.

CAROLE L. COLEMAN, 16
Brandon High School
Brandon, Florida

Sirs:

When is a man a man? We must buy an adult ticket to the theater when we are 12 years old. We are allowed the adult privilege of driving a car at 16 (in Missouri); we are an adult age for drafting into the armed services at 18. However, we are not mature enough to marry, vote, or inherit property until we are 21. If we are intelligent enough to fight for the good of our country at 18, we certainly ought to be intelligent enough to vote for the good of our country at the same age.

KIM KELLY, 18
Hickman High School
Columbia, Missouri

IF YOU MOVE

please send us both your OLD address and your NEW one. Send request for address change to AMERICAN YOUTH, Ceco Publishing Company, Department AY, 3-135 General Motors Building, Detroit 2, Michigan.

These letters represent a cross-section of the views of hundreds of teen-agers who wrote to us on the subject. We wish to thank all those who sent letters, and invite readers to write an answer to the following question: Is going steady an important prelude to marriage, or is it primarily a pattern of teen-age social life? We'll pay $10 if we publish your letter. Send letters, of 50 words or less, to National School Editor, AMERICAN YOUTH Magazine, 3-135 General Motors Building, Detroit 2, Michigan. Letters must be postmarked not later than September 30, 1961.

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The cars are *safer*...the roads are *safer*...

the rest is up to *you!*

"Swing your partner, around you go, chicken in the breadbasket pickin' up dough" . . . every week in barns and ballrooms everywhere, thousands of young people like yourself spin and turn to the happy beat of country music.

Saturday dancing, country style, calls for people who enjoy life and good times. And, if you're the driver for the day, remember that life and good times depend heavily upon the responsibility you assume behind the wheel.

The new cars help you drive safely with such conveniences as power steering, improved visibility and better brakes. Overpasses and underpasses, easier-to-read traffic signs and signals help with safety, too.

However, all the safety planning in the world means nothing without the full cooperation of the driver—you. You're the boss where safety is concerned. And if you do your job well, you get to drive more often—whether it's to country dances or trips downtown.

A car is a big responsibility . . . so handle it with care!

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